tion, drug cost, and therapeutic outcomes. Although additional data is required for conclusive evidence, the preliminary data suggests a downward trend in antibiotic costs in the ICU.

Gastrointestinal Disorders Research PGD

PGD1

OVER-THE-COUNTER NSAID USE AND GI TOXICITY

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INTRODUCTION: The impact of prescription NSAIDS on the GI tract is well documented. The easy availability of low-dose OTC NSAIDs may lead to iatrogenic GI disease invisible to the medical community. **OBJECTIVE:** To determine if the role and rate of GI adverse side effects were related to over-the-counter NSAID use. **METHODS:** Data were obtained by structured telephone survey administered to a nationally representative, randomly selected US adult population (>40 years). We compared responses of regular OTC NSAID users (defined as use for at least 4 of 7 days, and 16 of 30 days prior to the survey) with those of non-users. Logistic regression compared the likelihood of GI symptoms and use of GI medications, after adjusting for age, gender, ethnicity, and self-reported health status. **RESULTS:** We surveyed 535 OTC NSAID users (mean age = 63, range 40–96) and 1068 non users (mean age = 63, range 40–93). NSAID users were 2.1 times more likely to report GI symptoms than non users ($P = 0.0001$), and 2.7 times more likely to have taken OTC GI medications than non users ($P = 0.0001$) during past 30 days. 84.8% of NSAID users taking GI medications for their symptoms had not informed a physician of GI symptoms. **CONCLUSIONS:** OTC NSAIDs are widely used and thought to be safe at low dose. Our data show users commonly experience GI symptoms, for which they self-medicate without informing their physician. This may represent an important burden of hidden GI disease.

PGD2

IMPROVED DRUG COMPLIANCE USING EDUCATION AFFECTS MEDICAL UTILIZATION AND QUALITY OF LIFE FOR PEPTIC ULCER DISEASE PATIENTS

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Peptic ulcers, erosions of the stomach lining, afflict greater than 25 million Americans. Ulcers diminish quality of life and cost nearly $6 billion dollars annually. **OBJECTIVE:** To decrease unnecessary medical utilization, histamine-2-blocker (H2) and proton-pump-inhibitor (PPI) utilization and improve quality of life for peptic ulcer patients by using educational intervention to increase compliance to drug regimens for *H. pylori* eradication. **METHODS:** Patients were targeted for specific antibiotic therapies via drug data and verified at first telephone contact. A questionnaire developed and validated by Lewin-TAG was used for data collection. Data were collected for a 90 day period pre/post therapy regarding hospitalizations, doctor visits, emergency room visits, lost productivity, outpatient surgeries, pharmacy utilization and medical test/procedures resulting from the disease. Quality of life questions measured how often usual activities and work productivity were reduced due to peptic ulcer disease. Patient satisfaction with the program was also measured. **RESULTS:** (n = 1993, response rate = 94.5%) Patient compliance to drug regimen was found to be 95.7%. Hospitalizations were reduced by 73% ($P < 0.0001$), doctor visits by 49% ($P < 0.0001$). Emergency room visits were reduced by 72% ($P < 0.0001$) and outpatient surgeries by 56% ($P < 0.0001$). Finally, a decrease of 54% in H2/PPI usage ($P < 0.0001$) and a decrease of 76% in medical tests/procedures ($P < 0.0001$) were seen. Participants reported a 13% decrease in pain and symptoms ($P < 0.005$) and a 34% increase in productivity ($P < 0.0001$). Participant satisfaction rate with the program was 98.6%. **CONCLUSION:** The CarePatterns peptic ulcer disease program improves patients' quality of life, reduces unnecessary medical and pharmacy utilization, and is cost-effective.

PGD3

PROSPECTIVE EVALUATION OF AN INFORMATION DISSEMINATION PROGRAM INCORPORATING PEER COMPARISON FEEDBACK IN PEPTIC ULCER DISEASE MANAGEMENT

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OBJECTIVE: The aim of this project is to evaluate the effectiveness of a program including practice guidelines, treatment algorithms, and peer comparison feedback in changing physicians' prescribing behaviors in the treatment of patients with peptic ulcer disease (PUD). **METHODS:** A prospective intervention with a control group was conducted to determine the impact of a PUD information dissemination program targeted towards physicians in a managed care setting. Pharmacy claims data were used to assess impact of the program on utilization of eradication therapy, long-term antisecretory utilization, and total cost of drug therapy per patient. **RESULTS:** Preliminary data from a 3-month follow-up period are available and indicate that utilization of eradication

therapy increased significantly for physicians in the intervention group compared to physicians in the control group during the post-intervention period ($P = 0.02$). This increase in eradication utilization was not accompanied by a significant increase in the total cost of drug therapy per patient for the intervention group compared to the control group ($P = 0.82$). The results from a 9-month follow-up period will be presented. **CONCLUSIONS:** The main goal of the study, to increase the utilization of eradication therapy, was achieved in the 3-month follow-up period. Observable modification of physician behavior in only a three-month period is a positive finding, and may indicate an even greater impact when the program is evaluated over a longer period of time.

PGD4

THE CLINICAL AND ECONOMIC IMPACT OF COMPETING MANAGEMENT STRATEGIES FOR GASTROESOPHAGEAL REFLUX DISEASE (GERD)

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OBJECTIVES: The optimal management strategy for patients with symptoms of GERD remains undefined. Our objective was to examine the clinical and economic impact of competing management strategies. **METHODS:** Decision analysis was used to compare a traditional "step-up" strategy with sequential invasive diagnostic testing as needed to a strategy utilizing the initial "PPI test" followed by a "step-down" approach with sequential diagnostic testing as needed. The cost per symptom-free patient was assessed at 1-year. Systematic literature review, Medicare payments and drug AWPs were used to derive probability and cost estimates for the model. Where there was uncertainty in the literature, estimates were chosen to bias the model in favor of the traditional management strategy. **RESULTS:** The average cost per patient was $1045 and $1172 for the traditional "step-up" and PPI test strategies, respectively. The percentage of patients symptom-free at 1 year was 50% and 75% for the traditional and PPI test strategies, respectively. The incremental cost-effectiveness ratio for the PPI test strategy was $510 per additional symptomatic cure. The traditional strategy resulted in a greater than 5-fold increase in endoscopy utilization but a 47% reduction in ambulatory pH monitoring use. The reduced effectiveness of the traditional strategy may be attributed to a 118% increase in the use of high-dose H2RAs while reducing the use of PPIs by 42%–57%. The PPI test strategy remained most cost-effective as long as the sensitivity of the PPI test was greater than 23% and more than 47% of patients with a positive PPI test received a "step-down" trial. **CONCLUSIONS:** Strategies utilizing the initial PPI test followed by a "step-down" approach may result in improved symptom relief over 1 year, and more appropriate utilization of invasive diagnostic testing at a small marginal cost increase. These findings warrant a prospective trial comparing these strategies.

Drug Use & Drug/Healthcare Policy Research PDH

PDH1

ECONOMIC IMPLICATIONS FOR SAFETY-NET HOSPITALS: SCREENING FOR HEPATITIS C

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Recent work has shown that screening for Hepatitis C is cost-effective from a societal perspective. Safety-net hospitals are committed to providing care for their many uninsured and underinsured patients who are unable to pay. Adopting a screening policy would commit the institution to pay for expensive treatment for many of the screened positives. **OBJECTIVE:** Examine the economic implications for a safety-net hospital that adopts a Hepatitis C screening policy. **METHODS:** A Markov decision analytic model was constructed, using a reference case of a 35 year-old male without symptoms of Hepatitis C. The perspective adopted was a safety-net hospital. Two populations were examined: uninsured, and insured, but without coverage for combination interferon+ribavirin. Screening consisted of ELISA followed by a confirmatory PCR. It was assumed that PCR and virus genotyping were sent to an outside laboratory. Data came from prior publications. Patients were considered to be patients of this facility for 5 years. **RESULTS:** In the uninsured group, screening costs an additional $245 per patient, with an incremental cost-effectiveness ratio (ICER) of $12,300/QALY. As prevalence of infection ranged from 0.8%–9%, the additional cost of screening ranged from $77–$587, and the ICER from $11,500/QALY–$16,800/QALY. In the underinsured group, screening was associated with an additional cost of $166 per patient, with an ICER of $8300/QALY. Varying the prevalence produced additional costs of $38–$427. **CONCLUSIONS:** Although ICERs would appear to be cost-effective from a societal perspective, this is less clear for hospitals that deal with hard budgets, not the soft budget, cost-conscious environment assumed by incremental cost-effectiveness analysis. Screening for Hepatitis C may be an expensive policy to implement for safety-net hospitals. Public funding to support a screening and treatment program may be well justified.

PDH2

FACTORS RELATED TO PRESCRIPTION DRUG EXPENDITURE GROWTH: VOLUME VS. PRICE

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